

**Dr. Duke's Phytochemical and Ethnobotanical Databases**

**List of Plants for P-COUMARIC-ACID**

Plant	Part	Low PPM	High PPM	StdDev	Reference
Catalpa bignonioides	Leaf		15000.0	3.5884655750178984	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Helianthus annuus	Seed	900.0	1100.0	2.709983056618278	Jim Duke's personal files.
Capsicum frutescens	Fruit		540.0	2.293291804958545	--
Malus domestica	Fruit	15.0	460.0	1.836295249622603	--
Pimpinella anisum	Seed		737.0	1.636780984285061	--
Melissa officinalis	Shoot		8.3	1.414213562373095	--
Ananas comosus	Plant	330.0	730.0	1.0	--
Citrus sinensis	Pericarp	5.0	75.0	1.0	--
Curcuma longa	Rhizome		345.0	1.0	--
Origanum majorana	Leaf		1100.0	-0.06115839551859982	--
Fragaria spp	Fruit	63.0	125.0	-0.07737782584665391	Jim Duke's personal files.
Taxus baccata	Leaf	4.0	965.0	-0.09660438372165213	--
Ocimum basilicum	Leaf		760.0	-0.150429773215176	--
Citrus limon	Fruit	6.0	102.0	-0.20876433550573723	--
Thymus vulgaris	Leaf		420.0	-0.2397011509117522	--
Foeniculum vulgare	Fruit		93.0	-0.26017644798103073	--
Foeniculum vulgare	Seed	60.0	93.0	-0.2671918382565138	--
Carum carvi	Seed		86.0	-0.2878871950232701	--
Laurus nobilis	Leaf		192.0	-0.2995654865435739	--
Spinacia oleracea	Leaf		133.0	-0.31505669620268567	--
Capsicum annum	Fruit		79.0	-0.3401508451648206	--
Allium schoenoprasum	Leaf		21.0	-0.34446373826744014	--
Anethum graveolens	Leaf		16.0	-0.34577655264533097	--
Brassica oleracea var. botrytis l.	Leaf		13.0	-0.3465642412720655	--
Brassica oleracea var. italica	Leaf		13.0	-0.3465642412720655	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Brassica oleracea</i> var. <i>gemmifera</i>	Leaf		12.0	-0.34682680414764366	--
<i>Brassica oleracea</i> var. <i>capitata</i> l.	Leaf	0.5	9.0	-0.34761449277437817	--
<i>Brassica pekinensis</i>	Leaf		7.0	-0.3481396185255345	--
<i>Linum usitatissimum</i>	Seed		60.0	-0.364755663014079	--
<i>Zea mays</i>	Seed	4.0	46.0	-0.4061463765475915	--
<i>Triticum aestivum</i>	Seed	17.0	25.0	-0.46823244684786025	--
<i>Arachis hypogaea</i>	Seed		20.0	-0.48301484453840043	--
<i>Salvia</i> sp.	Seed		19.0	-0.48597132407650845	Phenolic Compounds in Food and Their Effects on Health, 67.
<i>Citrus paradisi</i>	Fruit	0.0	53.0	-0.4886747256490017	--
<i>Myristica fragrans</i>	Seed		7.0	-0.5214490785338048	--
<i>Glycine max</i>	Seed	1.0	4.0	-0.5303185171481289	--
<i>Juglans regia</i>	Seed	0.5	3.5	-0.531796756917183	--
<i>Laurus nobilis</i>	Fruit		20.0	-0.6771858047250778	--
<i>Elettaria cardamomum</i>	Fruit		19.0	-0.682898261666777	--
<i>Citrus sinensis</i>	Fruit	5.0	17.0	-0.6943231755501756	--
<i>Coriandrum sativum</i>	Fruit		16.0	-0.700035632491875	--
<i>Aspalathus linearis</i>	Shoot		1.0	-0.7071067811865475	--
<i>Zea mays</i>	Shoot		1.0	-0.7071067811865475	Jim Duke's personal files.
<i>Citrus paradisi</i>	Pericarp	5.0	25.0	-1.0	--
<i>Zingiber officinale</i>	Rhizome		19.0	-1.0	--
<i>Solidago gigantea</i>	Plant		45.0	-1.0	--
<i>Mentha x piperita</i>	Shoot				--
<i>Calendula officinalis</i>	Plant				--
<i>Medicago sativa</i>	Leaf				--
<i>Olea europaea</i>	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus maculata</i>	Resin, Exudate, Sap				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
<i>Matricaria recutita</i>	Plant				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of <i>Glycyrrhiza-glabra</i> . Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
<i>Tilia sp.</i>	Flower				--
<i>Aloe vera</i>	Leaf				Doff, W. 1953. In Vitro Tuberclostatic Action of Aloe and its Most Important Components. Arzneim-Forsch 3: 627-630.
<i>Trifolium pratense</i>	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
<i>Catalpa ovata</i>	Fruit				--
<i>Stachys officinalis</i>	Shoot				--
<i>Lycopersicon esculentum</i>	Fruit				--
<i>Rubus idaeus</i>	Leaf				--
<i>Rubus idaeus</i>	Bark				--
<i>Santolina chamaecyparissus</i>	Plant				--
<i>Vinca minor</i>	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Avena sativa</i>	Seed				--
<i>Ginkgo biloba</i>	Pollen Or Spore				Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Salvia officinalis</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Averrhoa carambola</i>	Plant				--
<i>Taraxacum officinale</i>	Flower				--
<i>Sesamum indicum</i>	Fruit				--
<i>Vaccinium corymbosum</i>	Plant				--
<i>Persea americana</i>	Fruit				--
<i>Sesamum indicum</i>	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Vitis vinifera</i>	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Helianthus annuus</i>	Pollen Or Spore		11.0		--
<i>Pueraria montana</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Annona muricata</i>	Plant				--
<i>Pisum sativum</i>	Seed				--
<i>Vaccinium myrtillus</i>	Fruit Juice				--
<i>Hura crepitans</i>	Leaf				--
<i>Tagetes patula</i>	Plant				--
<i>Hordeum vulgare</i>	Fruit				--
<i>Hedera helix</i>	Plant				--
<i>Pinus sylvestris</i>	Pollen Or Spore				--
<i>Digitalis purpurea</i>	Leaf				--
<i>Vigna radiata</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Gossypium sp</i>	Plant				--
<i>Rheum rhabarbarum</i>	Pt		44.0		--
<i>Rheum rhabarbarum</i>	Root				--
<i>Phaseolus vulgaris</i>	Plant				--
<i>Polygala senega</i>	Root				--
<i>Prunus persica</i>	Leaf				--
<i>Allium cepa</i>	Leaf				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
<i>Allium cepa</i>	Root				Das, V. S. R., Rao, J. V. S. 1964. Phenolic Acids of Onion Plant. Curr. Sci., 33(15): 471-472.
<i>Althaea officinalis</i>	Leaf				--
<i>Vaccinium myrtillus</i>	Fruit				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Actinidia chinensis</i>	Plant				--
<i>Sambucus nigra</i>	Flower				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Cydonia oblonga</i>	Fruit				--
<i>Mentha x rotundifolia</i>	Shoot				Jim Duke's personal files.
<i>Hypericum perforatum</i>	Plant				--
<i>Apium graveolens</i>	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Hordeum vulgare</i>	Seed				--
<i>Petroselinum crispum</i>	Stem				--
<i>Aloe vera</i>	Plant				Pakistan Encyclopedia Planta Medica. 1986.
<i>Urginea maritima</i>	Bulb				--
<i>Rubus spectabilis</i>	Leaf				Li, C.Y. 1974. Phenolic Compounds in Understory Species of Alder, Conifer, and Mixed Alder-Conifer Stands of Coastal Oregon. <i>Lloydia</i> , 37(4): 603-607.
<i>Taraxacum officinale</i>	Plant				--
<i>Ligustrum japonicum</i>	Leaf				--
<i>Sophora japonica</i>	Plant				--
<i>Euphorbia hirta</i>	Leaf				--
<i>Terminalia chebula</i>	Plant				Kim, J. S., Lee, G. D., Kwon, J. H., Yoon, H. S. 1993. Identification of Phenolic Antioxidative Components in <i>Terminalia chebula</i> Retz. <i>Han'guk Nonghwa Hakhoe Chi</i> 36 4: 239-243.
<i>Lactuca sativa</i>	Plant				--
<i>Oryza sativa</i>	Petiole		0.9		--
<i>Salix alba</i>	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd. Essex UK, 362 pp, 1988, reprint 1989.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Medicago sativa</i>	Tissue Culture				--
<i>Rubus parviflorus</i>	Leaf				Li, C.Y. 1974. Phenolic Compounds in Understory Species of Alder, Conifer, and Mixed Alder-Conifer Stands of Coastal Oregon. <i>Lloydia</i> , 37(4): 603-607.
<i>Trigonella foenum-graecum</i>	Plant				--
<i>Lythrum salicaria</i>	Leaf				--
<i>Vaccinium myrtillus</i>	Leaf				--
<i>Raphanus sativus</i>	Root		91.0		--
<i>Coffea arabica</i>	Plant				--
<i>Pueraria montana</i>	Flower				--
<i>Daucus carota</i>	Root				--
<i>Artemisia absinthium</i>	Plant				--
<i>Nicotiana tabacum</i>	Flower				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Prunus dulcis</i>	Plant				--
<i>Vaccinium macrocarpon</i>	Fruit				--
<i>Solanum tuberosum</i>	Tuber	4.0	250.0		--
<i>Centaurium erythraea</i>	Plant				--
<i>Althaea officinalis</i>	Flower				--
<i>Prunus cerasus</i>	Fruit				--
<i>Arctostaphylos uva-ursi</i>	Leaf				--
<i>Juniperus communis</i>	Leaf				--
<i>Kalanchoe pinnata</i>	Plant				--
<i>Aloe vera</i>	Juice				Waller, G. R., Mangiafico, S., Ritchey, C. R. 1978. A Chemical Investigation of <i>Aloe barbadensis</i> . <i>Proc. Okla. Acad. Sci.</i> 58: 69-.
<i>Euphorbia lathyris</i>	Leaf				--
<i>Cinnamomum verum</i>	Bark		14.0		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eleutherococcus senticosus</i>	Root				--
<i>Basella alba</i>	Plant				--
<i>Agrimonia eupatoria</i>	Plant				--
<i>Sanguisorba minor</i>	Plant				--
<i>Piper nigrum</i>	Fruit				--
<i>Citrus sinensis</i>	Fruit Juice				Jim Duke's personal files.
<i>Juglans regia</i>	Testa	160.0	600.0		--
<i>Fagopyrum esculentum</i>	Testa				--
<i>Trigonella foenum-graecum</i>	Stem				--
<i>Elaeagnus angustifolia</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Serenoa repens</i>	Fruit Juice				--
<i>Populus balsamifera</i>	Leaf				--
<i>Rosa canina</i>	Stem				--
<i>Origanum vulgare</i>	Leaf				--
<i>Ribes uva-crispa</i>	Fruit				--
<i>Rosa canina</i>	Tissue Culture				--
<i>Oenothera biennis</i>	Leaf				--
<i>Viola tricolor</i>	Plant				--
<i>Pteridium aquilinum</i>	Leaf				--
<i>Pteridium aquilinum</i>	Plant				--
<i>Zea mays</i>	Sprout Seedling				--
<i>Equisetum arvense</i>	Plant				--
<i>Urtica dioica</i>	Plant				--
<i>Valeriana officinalis</i>	Plant				--
<i>Brassica oleracea</i> var. <i>botrytis</i> l.	Flower		35.0		--
<i>Malus domestica</i>	Leaf				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Prunus laurocerasus</i>	Plant				--
<i>Glechoma hederacea</i>	Plant				--
<i>Prunus serotina</i>	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
<i>Ficus carica</i>	Wood				--
<i>Rubus idaeus</i>	Plant				--
<i>Punica granatum</i>	Fruit Juice				--
<i>Artemisia dracunculus</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Punica granatum</i>	Leaf				--
<i>Beta vulgaris</i>	Plant				--
<i>Elettaria cardamomum</i>	Leaf				--
<i>Lens culinaris</i>	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
<i>Castanea sativa</i>	Plant				--
<i>Juglans regia</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Humulus lupulus</i>	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Centaurea cyanus</i>	Flower				Jim Duke's personal files.
<i>Echinacea purpurea</i>	Fruit Juice				Jim Duke's personal files.
<i>Althaea officinalis</i>	Root				--
<i>Theobroma cacao</i>	Seed				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Cocos nucifera</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Melilotus officinalis</i>	Plant				Pharmazie, 46: 156, 1991.
<i>Glycine max</i>	Shoot				--
<i>Rubus idaeus</i>	Juice				--
<i>Gaultheria procumbens</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Origanum vulgare</i>	Plant				Stitt, Paul. Why George should eat broccoli.
<i>Allium cepa</i>	Bulb				--
<i>Allium sativum</i> var. <i>sativum</i>	Bulb	2.0	58.0		--
<i>Prunus armeniaca</i>	Plant				--
<i>Ononis spinosa</i>	Root				Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin.
<i>Sorbus aucubaria</i>	Plant				--
<i>Cyamopsis tetragonoloba</i>	Silk Stigma Style				Kandasamy, M. K. 1986. The Stigmatic Exudate of <i>Cyamopsis tetragonoloba</i> L. Taub. Biochem Physiol Pflanz, 181(8): 571-575.
<i>Allium ampeloprasum</i>	Plant				--
<i>Papaver somniferum</i>	Pericarp				--
<i>Ribes nigrum</i>	Fruit				--
<i>Ricinus communis</i>	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
<i>Vicia faba</i>	Plant				--
<i>Commelina communis</i>	Flower				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
<i>Melilotus officinalis</i>	Shoot				--
<i>Panax ginseng</i>	Root				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Prunus domestica</i>	Fruit				Jim Duke's personal files.
<i>Brassica nigra</i>	Seed				Jim Duke's personal files.
<i>Mangifera indica</i>	Plant				--
<i>Plantago major</i>	Plant				--